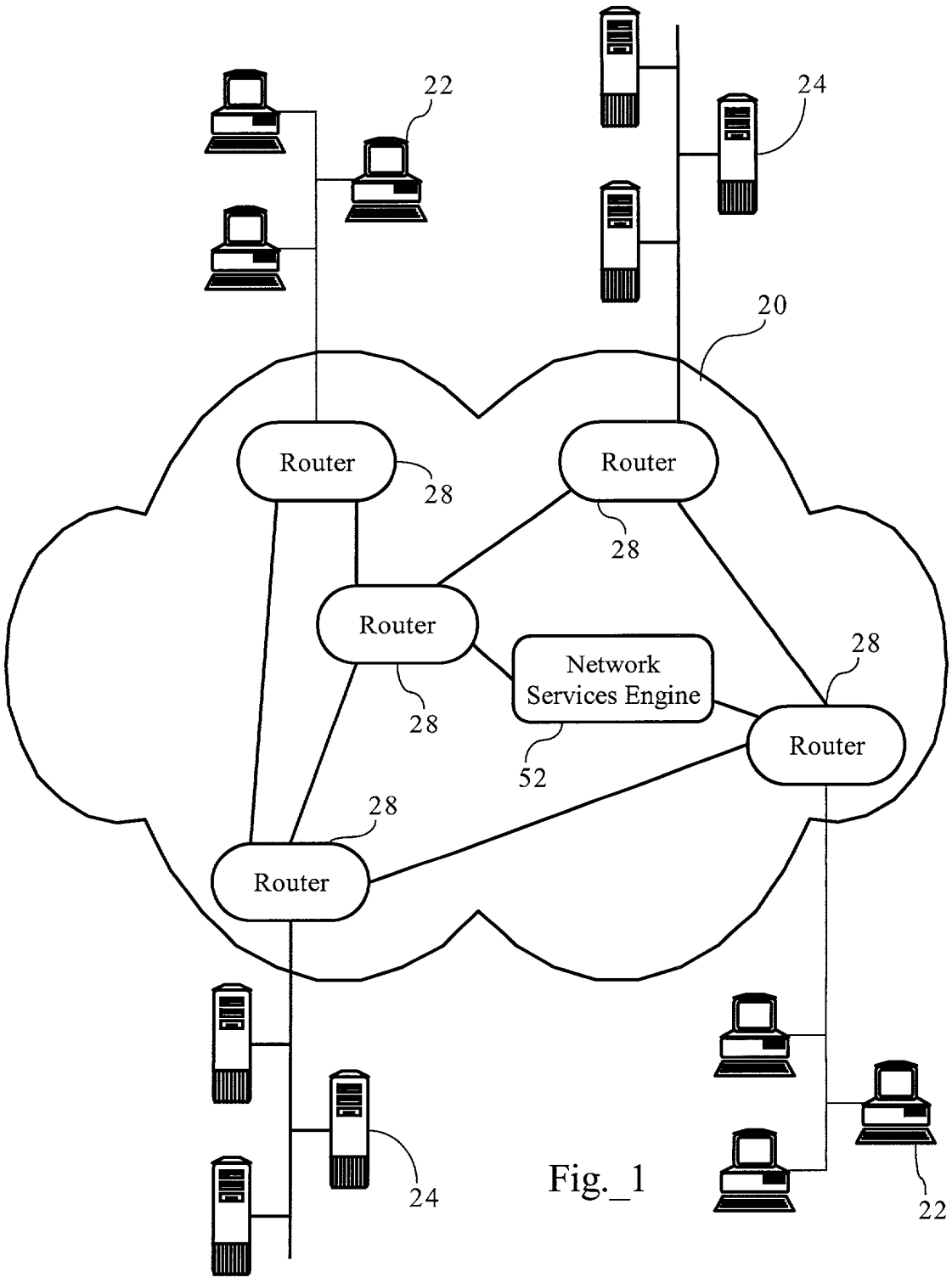
22
24
20
Router
28
Router
28
Router
28
Network
Services Engine
52
28
Router
28
Router
24
22

Fig._1

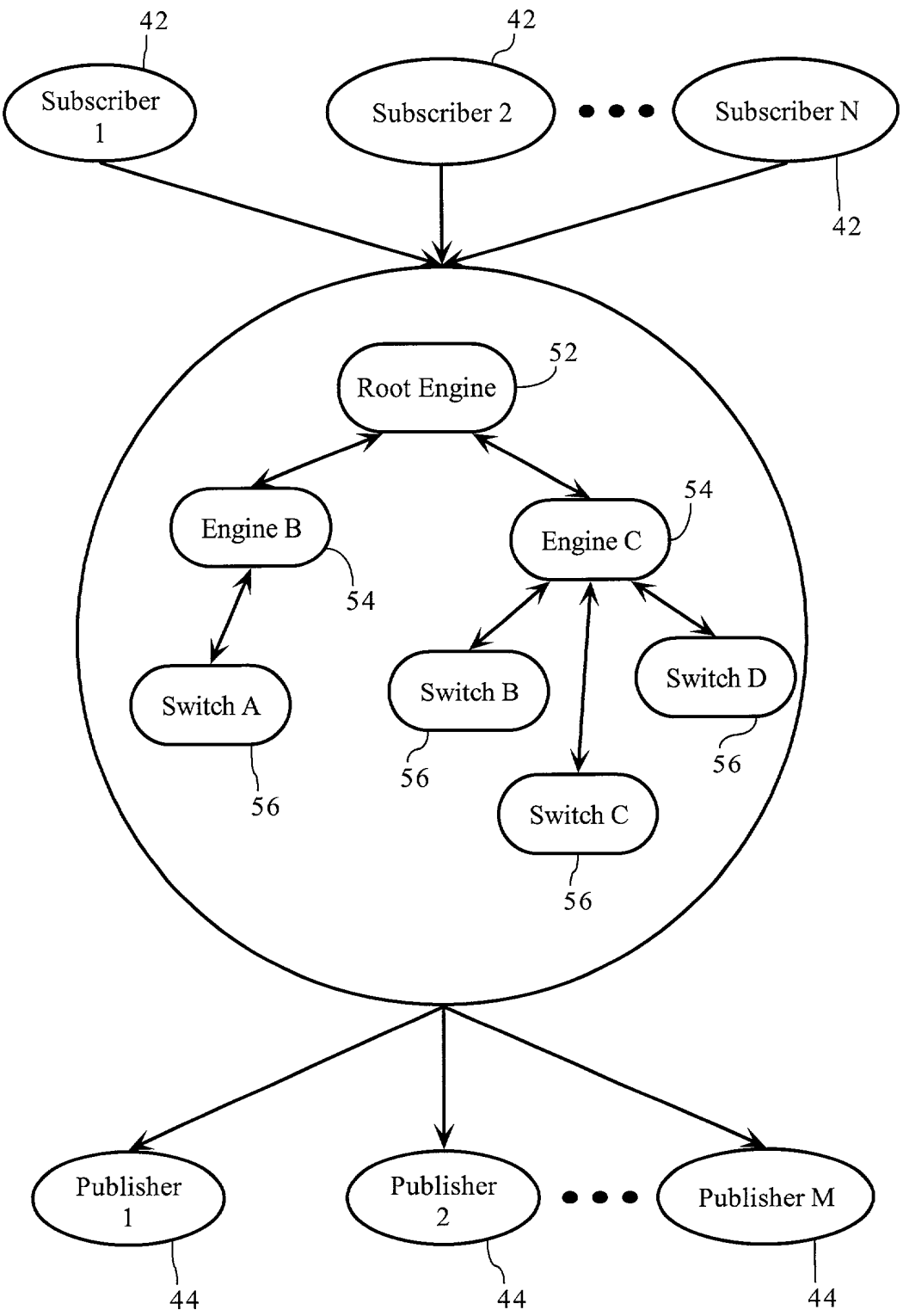
42
Subscriber 1
42
Subscriber 2
Subscriber N
42
52
Root Engine
Engine B
54
54
Engine C
Switch A
56
Switch B
56
Switch D
56
Switch C
56
Publisher 1
44
Publisher 2
44
Publisher M
44

Fig._2

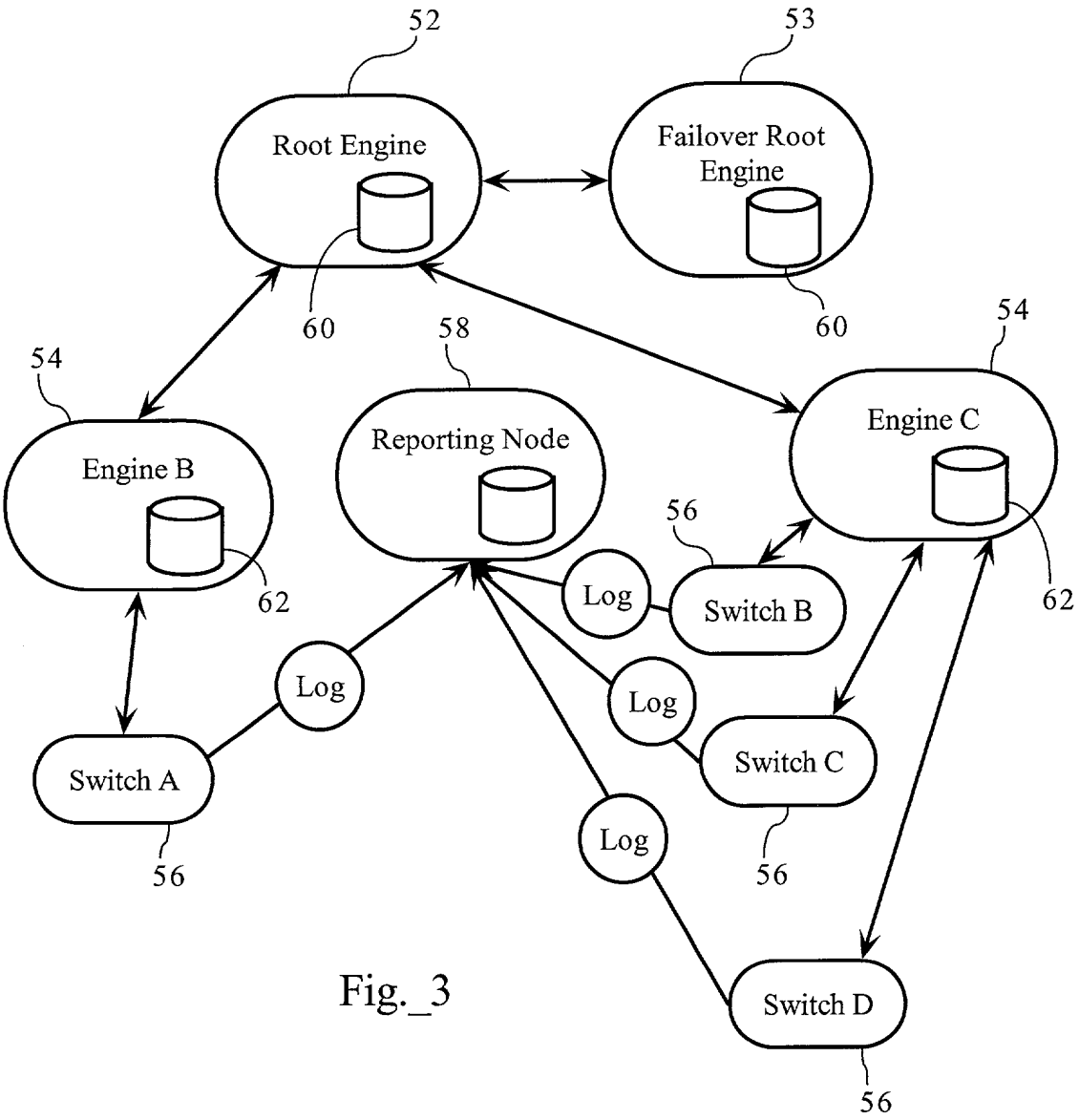
52
53
Root Engine
Failover Root Engine
60
60
54
58
54
Engine B
Reporting Node
Engine C
56
62
62
Log
Switch B
Log
Log
Switch A
Switch C
56
56
Switch D
56

Fig._3

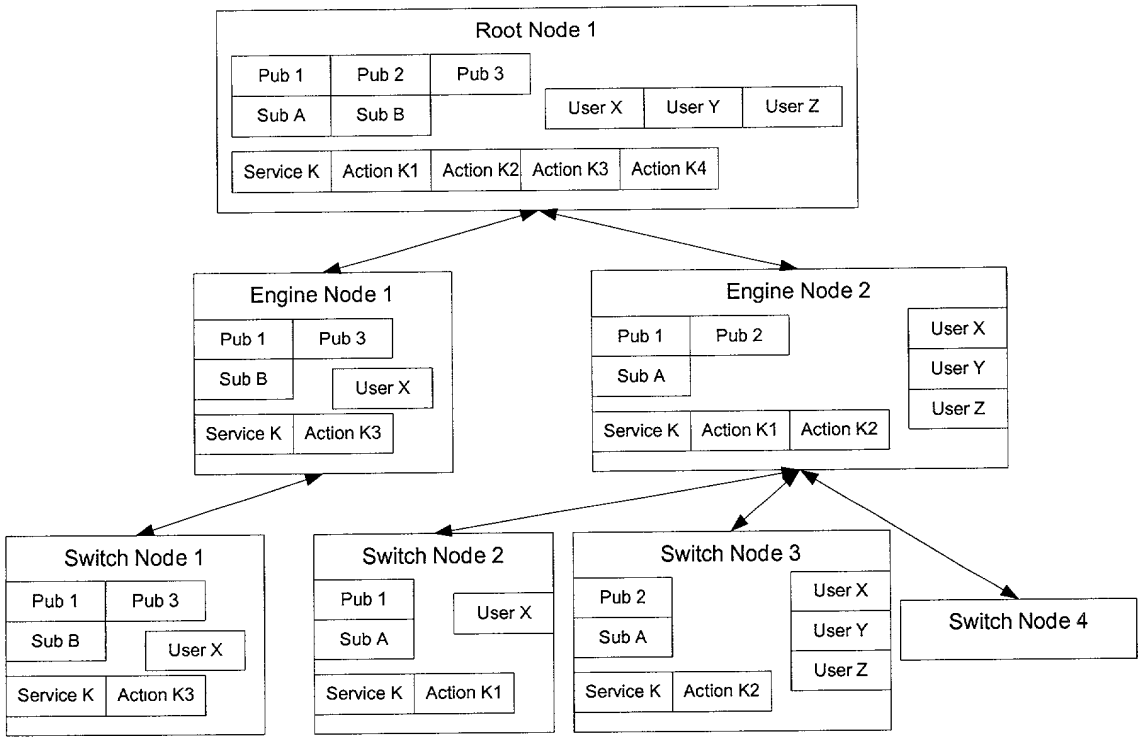
Root Node 1
Pub 1
Pub 2
Pub 3
Sub A
Sub B
User X
User Y
User Z
Service K
Action K1
Action K2
Action K3
Action K4
Engine Node 1
Pub 1
Pub 3
Sub B
User X
Service K
Action K3
Engine Node 2
Pub 1
Pub 2
Sub A
User X
User Y
User Z
Service K
Action K1
Action K2
Switch Node 1
Pub 1
Pub 3
Sub B
User X
Service K
Action K3
Switch Node 2
Pub 1
User X
Sub A
Service K
Action K1
Switch Node 3
Pub 2
User X
Sub A
User Y
User Z
Service K
Action K2
Switch Node 4

Fig._4

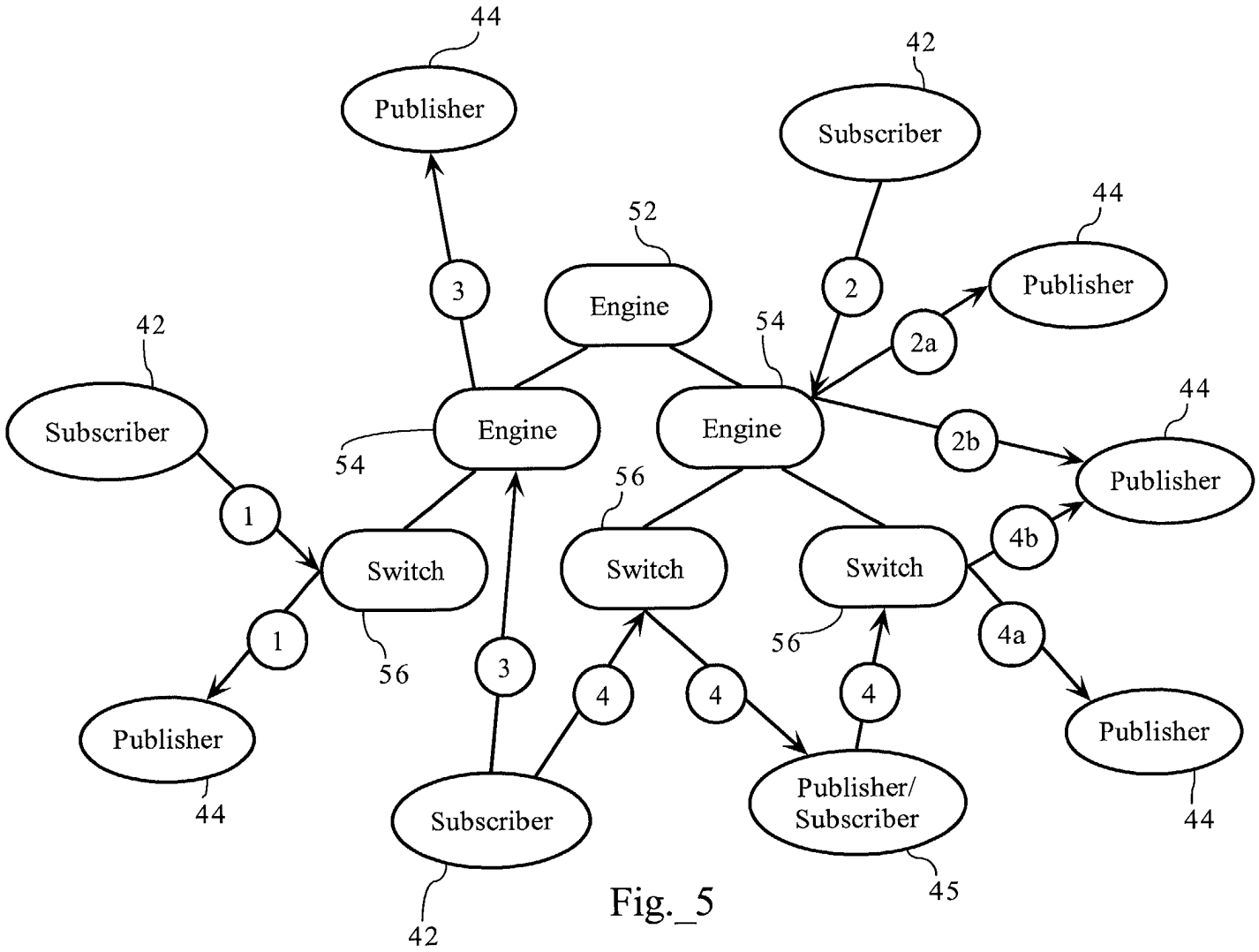
44
Publisher
42
Subscriber
52
Engine
3
2
44
Publisher
2a
42
Subscriber
54
Engine
Engine
54
2b
44
Publisher
1
56
Switch
Switch
Switch
4b
1
56
3
4
4
4
4a
Publisher
Subscriber
Publisher/
Subscriber
Publisher
44
42
45
44

Fig._5

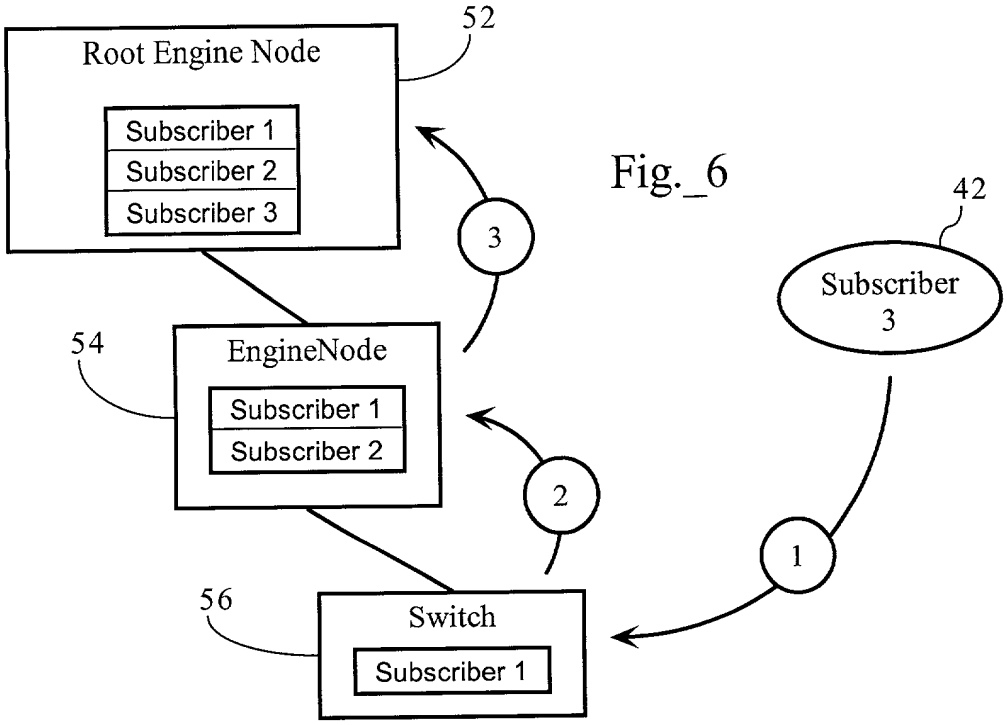
Root Engine Node
Subscriber 1
Subscriber 2
Subscriber 3
52
3
42
Subscriber 3
54
EngineNode
Subscriber 1
Subscriber 2
2
1
56
Switch
Subscriber 1

Fig._6

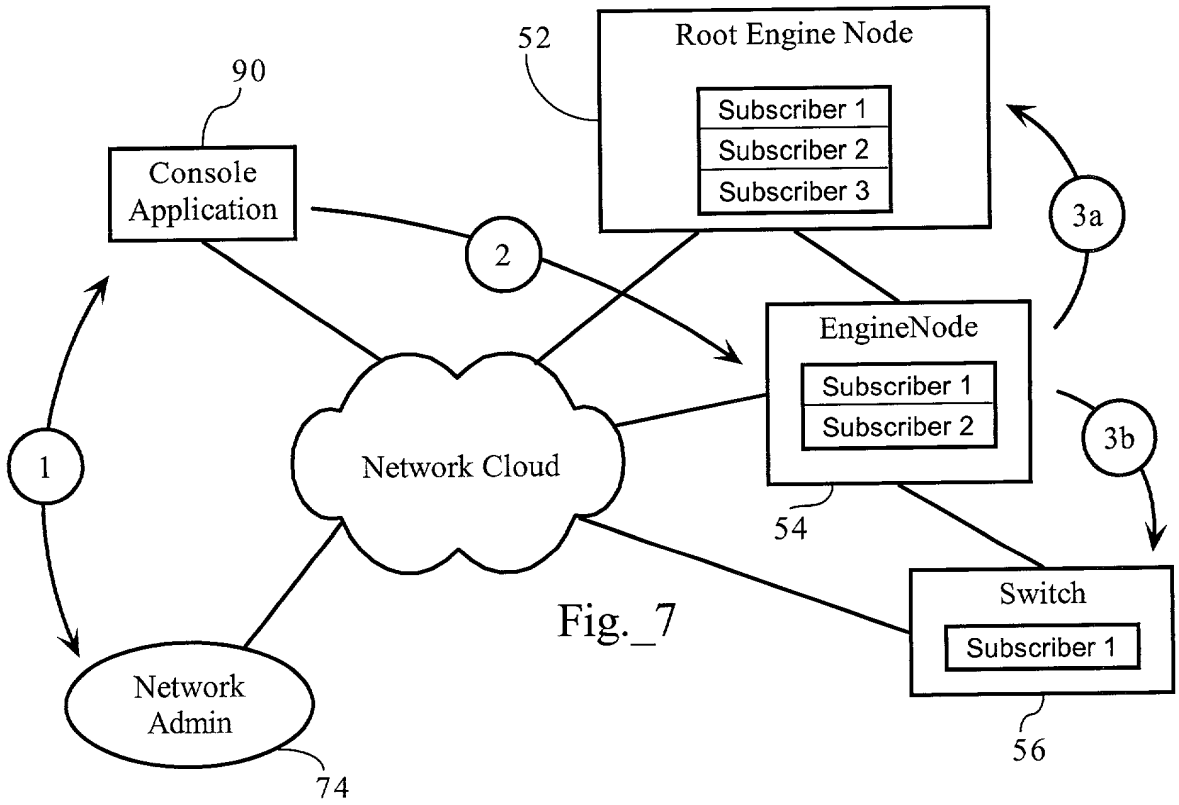
52
Root Engine Node
Subscriber 1
Subscriber 2
Subscriber 3
90
Console Application
2
3a
EngineNode
Subscriber 1
Subscriber 2
1
Network Cloud
3b
54
Switch
Subscriber 1
Network Admin
74
56

Fig._7

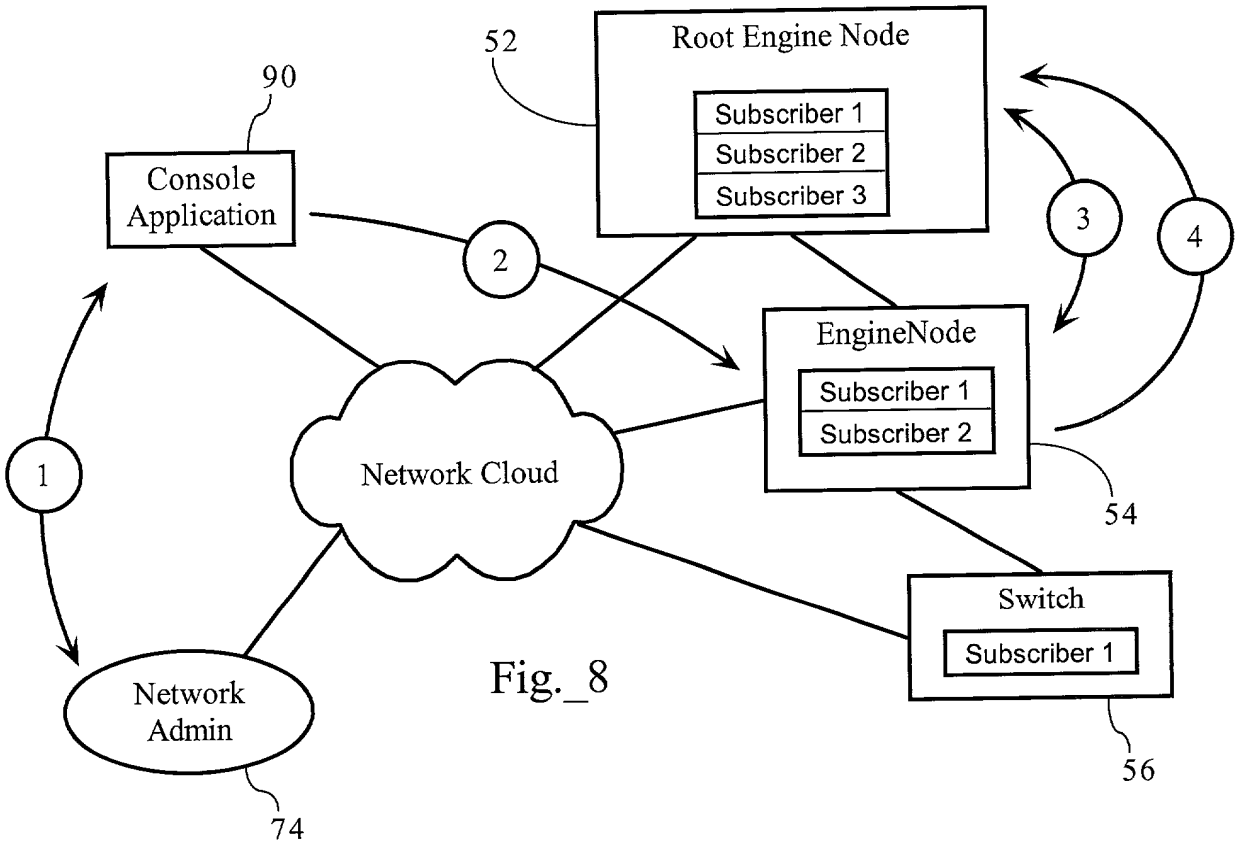

Fig._8

Routing Entity	Local Routing Table	Chile Node A	Child Node B
Subscriber X	12/10/02; 17:26	12/12/02; 11:16	10/12/02; 10:53
Subscriber Y	12/19/02; 15:05	12/19/02; 15:51	12/20/02; 13:15
Publisher X	12/5/02; 13:27	1/3/03; 16:14	1/4/03; 16:15
Service X	12/1/02; 16:21	12/5/02; 16:22	12/4/02; 18:16
Action X	1/6/03; 18:45	1/5/03; 14:17	1/7/03; 19:21
End-User X	12/21/02; 15:11	12/22/02; 15:16	12/21/02; 19:16

Fig._9